

**عنوان مقاله:**

Crystal structure of [Cu(terpy)(phen-dione)](PF6)2

**محل انتشار:**

پانزدهمین همایش انجمن بلورشناسی و کانی شناسی ایران (سال: 1386)

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**خلاصه مقاله:**

New five-coordinated Cull complexe, [Cu(terpy)(phen-dione)](PF6)2, (terpy= 2,2';6',2' - terpyridine and phen-dione=1,10-phenanthroline-5,6-dione) has been prepared. The complex of [Cu(terpy)(phen-dione)](PF6)2 crystallized with one molecule of acetonitrile with empirical formula C29 H20 Cu F12 N6 O2 P2, in a monoclinic crystalsystem and space group of P21/c with  $a = 8.440(2)\text{\AA}$ ,  $b = 26.067(5)\text{\AA}$ ,  $c = 15.015(3)\text{\AA}$ ,  $\beta = 92.855(18)^\circ$ ,  $V = 3299.1(12)\text{\AA}^3$  and  $Z = 4$ . ORTEP drawing of [Cu(terpy)(phen-dione)](PF6)2.CH3CN shows that the coordination geometry around Cull is a distorted square- pyramidal. Due to steric hidereance of PF6<sup>-</sup> in unit cell, the terpy ligands in each complex cations can not interact via the two  $\pi$ - electronic systems.

**کلمات کلیدی:**

Cull complex; 1,10-Phenanthroline-5,6-dione; Crystal structure; Ligand – to- metal charge –transfer

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